

# SHOW WINDOW LIGHTING

*Fluorescent* **X-RAY**  
TRADE MARK REG.

**ALZAK REFLECTOR UNITS**



**DIRECTED LIGHT STOPS HER**  
**ABUNDANT LIGHT SELLS HER**

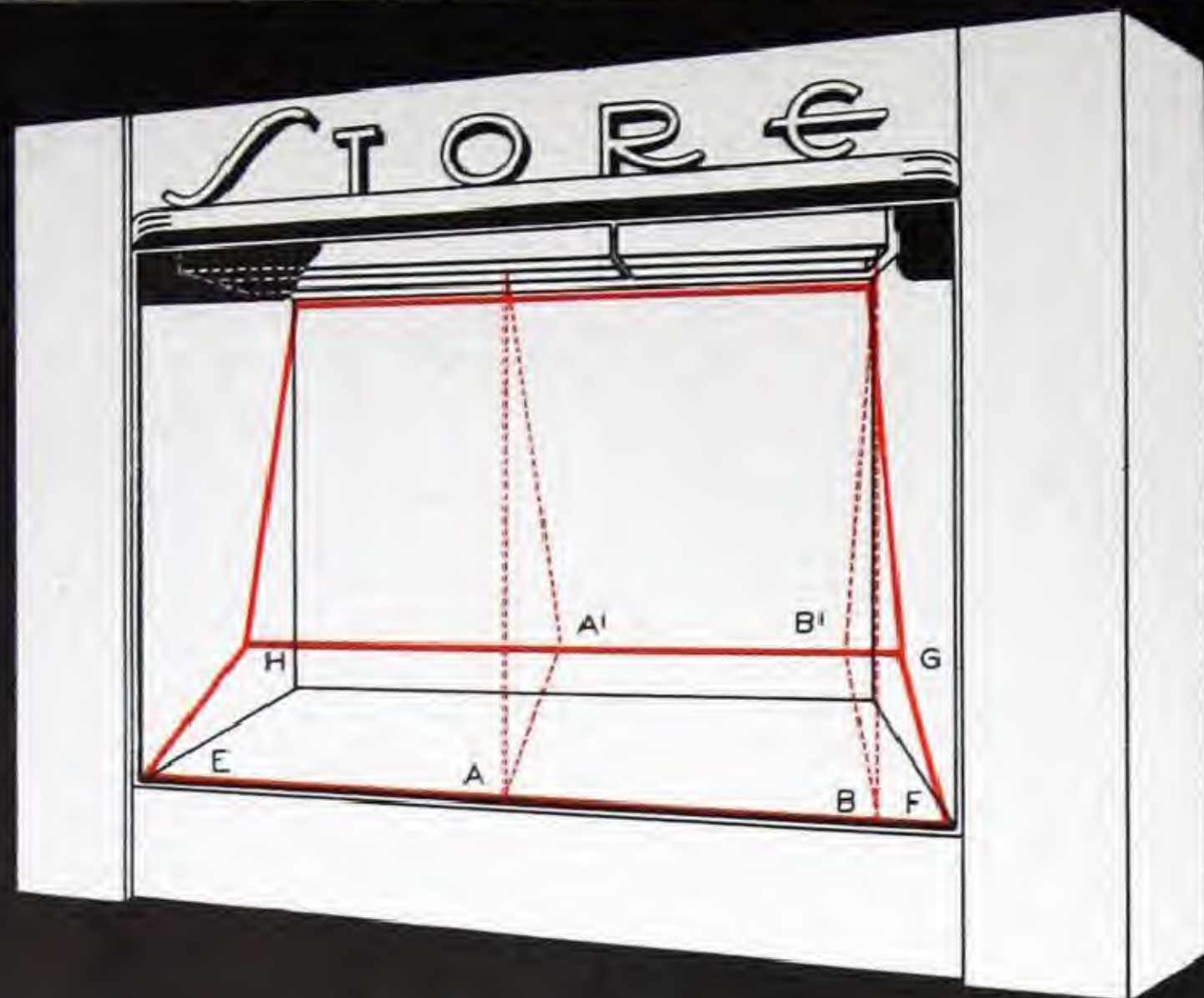


**CURTIS**  
**LIGHTING, INC.**

**PIONEERS OF CONTROLLED SHOW WINDOW LIGHTING**



# How to Plan



Fluorescent X-Ray units are designed to bring into the show window the vitality and realism of fluorescent lighting. They rivet the gaze of the shopper by concentrating the light rays down on the display goods . . . they attract attention from a distance by their interesting and realistic color tone.

## ILLUMINATION WHEN USED WITH LOUVERS

The foot-candle data in the table at right was compiled for equipment without louvers. However the values in the table apply also to louvered equipment where a single unit or a file with units arranged one behind the other is used. If two or more louvered units are used in a row multiply the values given in the table by .85.

## EQUIPMENT FOR USING VARIOUS COLOR LAMPS

The 5' fluorescent lamp is available only in white. When lamps are to be used in various colors, the 3' unit must be used. The 3' lamps are available in White, Daylight Blue, Green, Pink, Gold and Red.

## USING THE FOOT-CANDLE TABLE

Measure length of window and refer to table for combinations and arrangement of units that will give the level of illumination desired.

In the table (below) all foot-candle readings have been taken on the "Attraction Zone," the plane indicated in the illustrations as area E F G H. This is the area where the glance of the passerby normally falls and, therefore, is the most valuable display space in the show window. Fluorescent X-Ray reflectors are engineered to direct high illumination on this area.

A-A' is the center line of the "Attraction-Zone," the line on which foot-candle readings are taken to obtain "average center value" of illumination.

B-B' is the line on the "Attraction-Zone" directly below the end of the Fluorescent X-Ray equipment on which foot-candle readings are taken to obtain "average end value" of illumination.

## AVERAGE FOOT-CANDLE VALUES ON "ATTRACTION-ZONE"

(area EFGH of the illustration)

For show windows averaging from 3' to 7' deep and 7' high. Many combinations of the three and five foot units may be used. Below are typical examples. Note that all readings are based on rated lumens of lamps.

Approx. Length of Window in Feet	No. of Rows	Total Length of Equip. Approx.	Number of Units in Window		Total Watts in Window With Ballasts	FOOT-CANDLES (White Lamps)	
			Cat. No.	Arrangement		Average Center Value	Average End Value
3½ to 5	1	3'-2"	1—No. 934C		150W	45	40
	2	3'-2"	2—No. 934C		300W	90	75
5 to 8½	1	5'	1—No. 936C		235W	70	55
	2	5'	2—No. 936C		470W	140	105
8½ to 10	1	8'-2"	1—No. 934C 1—No. 936C		385W	95	65
	2	8'-2"	2—No. 934C 2—No. 936C		770W	185	125
10 to 13½	1	10'	2—No. 936C		470W	110	70
	2	10'	4—No. 936C		940W	215	135
13½ to 15	1	13'-2"	1—No. 934C 2—No. 936C		620W	130	80
	2	13'-2"	2—No. 934C 4—No. 936C		1240W	250	150

Note: The average foot-candle value on the entire background or trim plane of shallow windows will be greater than the values given above, and for deep windows the values will be less.



FEB 1 1941

# StarLux FOUR LAMP fluorescent LUMINAIRE



*StarLux* is an attractive luminaire of high overall efficiency and low brightness designed for store and office lighting.

**FINISH** is aluminum lacquer with diffusing glass panels, "Fluracite" louver, and golden bronze lacquer ornamental castings.

**DIMENSIONS:** Width, 14"; depth, 6 $\frac{1}{8}$ "; length, 49 $\frac{1}{4}$ "; suspension, 36" to top of body.

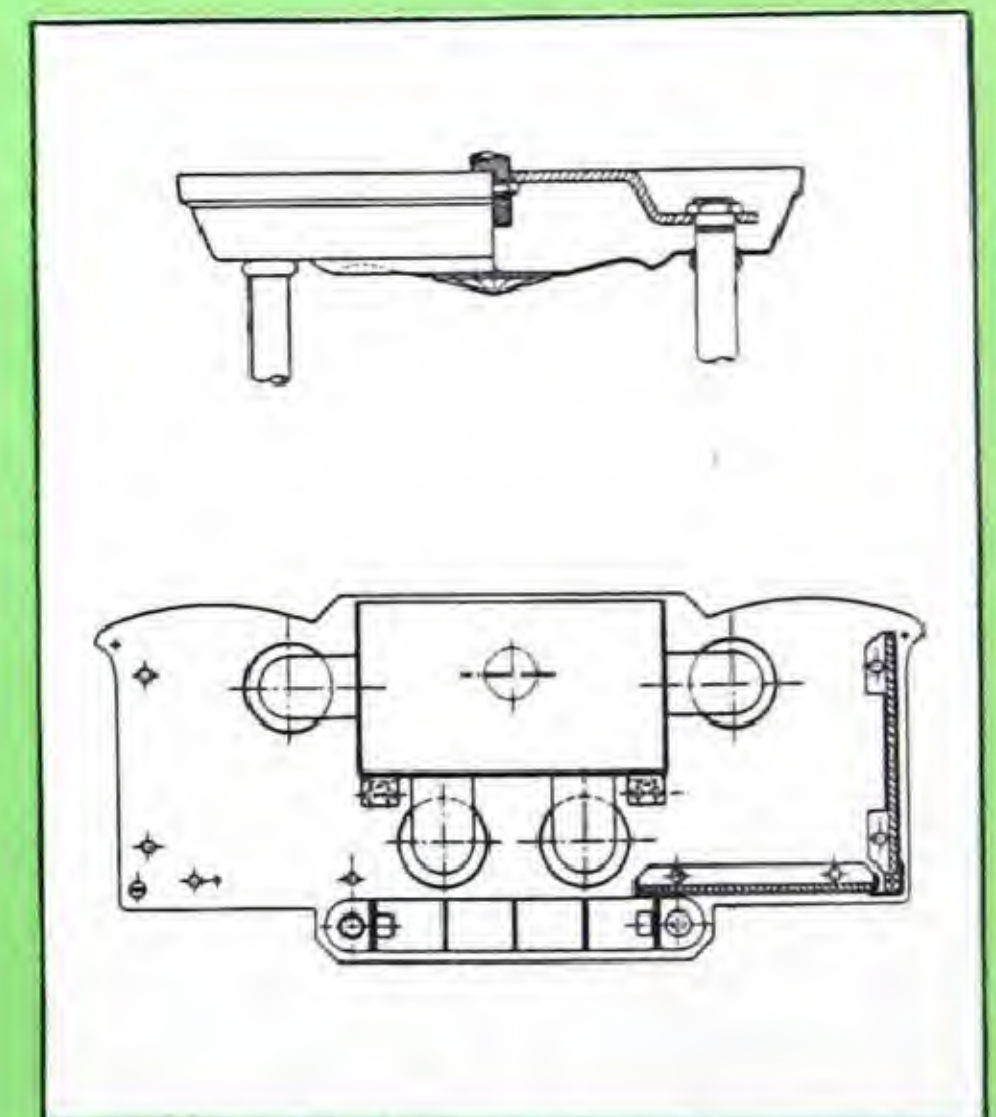
**WIRED:** Furnished wired with 2 high power factor two-lamp ballasts, starters and starting compensators for 110-125 volts A.C. Bears Underwriters' Label.

**WATTAGE:** Total watts including control equipment, 200 approx.

**CONSTRUCTION:** Interior body is finished in efficient and durable "Fluracite" for highest reflectivity. The two vertical glass panels slide into grooves and can be easily removed for cleaning or relamping. Louver swings down easily for access to the lower lamps. Canopy is of heavy gauge metal with cast ornamental star and conceals a heavy supporting bridge. Ornamental end castings are removable, making it possible to install "StarLux" in continuous lines.

**Catalog No. 1400:** Luminaire for four 40-watt fluorescent lamps. Completely wired and individually carton-packed. Less lamps.

Cat. No. 1400



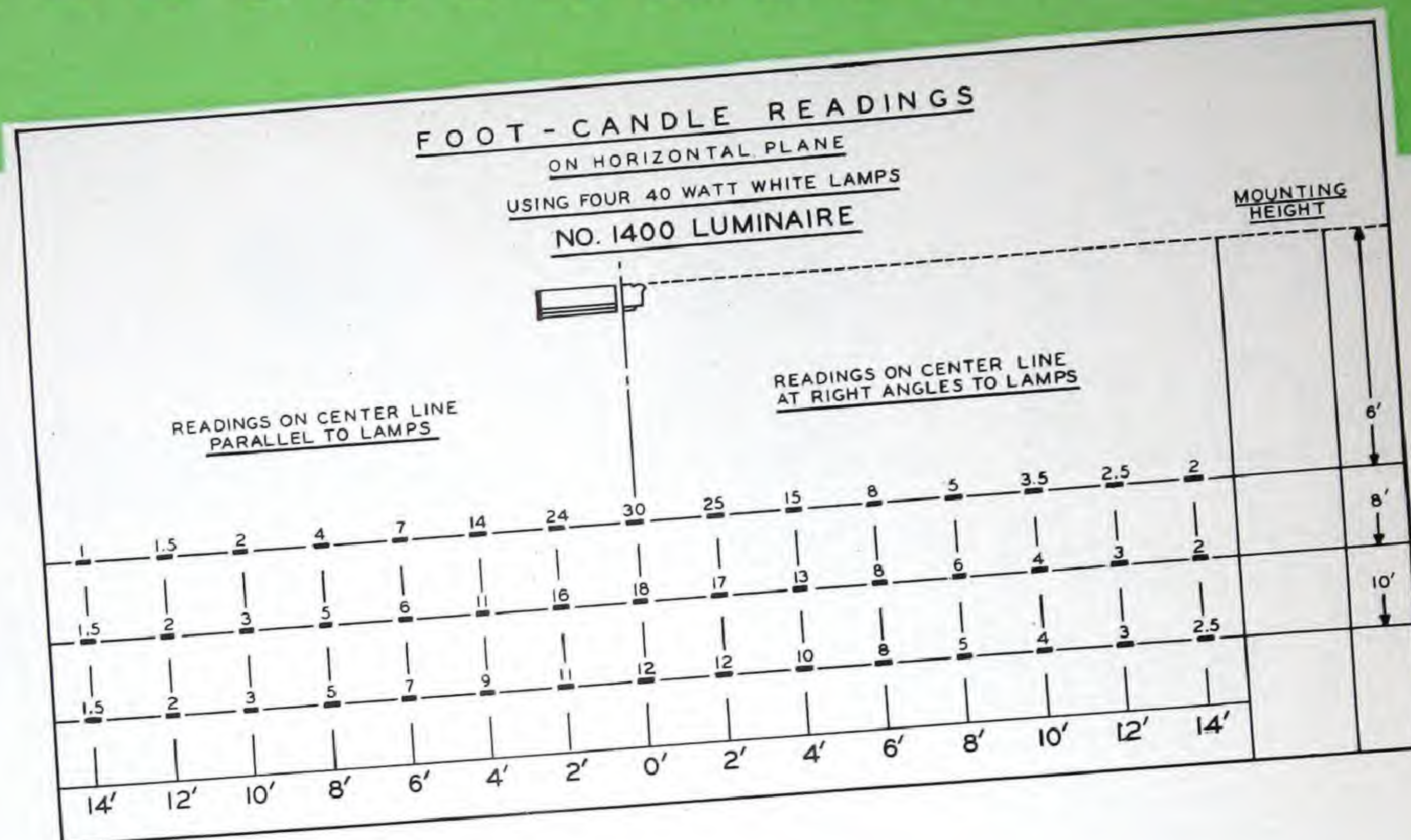
## Curtis Lighting, Inc.

1123 W. JACKSON BLVD., CHICAGO

SERIAL F-1099



# ILLUMINATION DATA



Foot-candle readings given in chart (above) were obtained at given distances from a single unit with standard 36" suspension under a ceiling of approximately 75% reflection factor and were based on lamps of 2100 lumens each. No depreciation factor included.

Distances in diagram are to scale. This makes it easy to interpolate for various mounting height distances or angles.

In any actual installation, the total foot-candles will depend on the spacing of units and amount of light reflected from the side walls.

The table below shows the amount of illumination which will be normally obtained in practice. Since a depreciation factor has been deducted, Initial foot-candles will be appreciably higher than those shown.

For daylight lamps, multiply foot-candle values by .85.

## AVERAGE FOOT-CANDLES FOR VARIOUS ROOM CONDITIONS

Ceiling Height	Area Per Outlet (Sq. Ft.)	AVERAGE MAINTAINED ILLUMINATION ON HORIZONTAL *		
		Large Room	Medium Room	Small Room
		4 or More Units In Each Direction	2 or 3 Rows of Units	1 Row of Units
10' to 14'	50	46-53	40-45	30-35
	75	34-40	32-36	23-28
	100	24-28	21-25	17-20
	150	17-20	15-18	13-15
14' to 16'	50	40-45	32-38	20-24
	75	30-34	25-30	15-18
	100	21-25	18-22	12-14
	150	15-18	12-15	9-12

\* Depreciation Factor of 30% has been allowed.

Range of foot-candles covers variation in room conditions (color of decoration and spacing of units.)

Above readings obtained with ivorytone ceilings and light colored walls.



# Curtis **"XR"** Schedule

## Supplement to Price Sheet XR-1013

PRICE SHEET FOR LOW PRICED RECESSED UNITS

This Applies to Equipment in Serial 1094

RETAIL  
PRICES

SUPPLEMENTARY  
PRICE SHEET

**XR-2007**

January 22, 1941

**All Prices Are NET EACH ITEM**

Approximate Shipping Weights	Catalog No.	Standard Package	Retail Price <b>R</b>
34	2120-H	4	\$13.00
34	2120-K	4	12.60
44	2130-H	8	7.95
44	2130-K	8	7.70
4	14312*	4	1.25
7	14028*	10	.85

\*Plaster rings—not included with units. Order No. 14312 for 2120H&K or No. 14028 for 2130H&K.

**RETAIL PRICES**

**Curtis Lighting, Inc.**

1123 W. Jackson Blvd.

NEW YORK

CHICAGO

TORONTO



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# LOW PRICED CURTIS RECESSED UNITS

Curtis' two low priced recessed lighting units for 200-300 watt medium base and 300-500 watt mogul base lamps provide high levels of illumination on both the horizontal and vertical planes. These features make both units ideal for stores where merchandise is displayed on shelves or tables. In self-service stores the higher level of illumination provided on the labels by these units will reduce the time required to select merchandise and will make the shoppers task easier.



## ENGINEERED PARTS AND ACCESSORIES PLACE THESE UNITS IN THE LOW PRICE FIELD

**SPECIFICATIONS:** Each unit consists of silver mirror reflector which seats directly on the ceiling flange. Sockets are either medium base for 200-300 watt lamps or mogul for 300-500 watt lamps. Each is available with four inch outlet box cover assembly or side outlet shell and socket assembly. The concentric louver supplied is easily removed for cleaning or lamp replacement.

**DIMENSIONS:** 2120 H or K Reflector No. 588 used for 300-500 watt units is  $11\frac{7}{8}$ " in diameter and requires a hole  $12\frac{1}{2}$ " in diameter. The ceiling flange for this unit is  $14\frac{7}{8}$ " in diameter.

2130 H or K Reflector No. 575 used for 200-300 watt units is  $9\frac{3}{8}$ " in diameter and requires a hole 10" in diameter. The ceiling flange for this unit is 12" in diameter.

### MINIMUM HEIGHT TO INSTALL

When an outlet box is used with the No. 588 reflector a height allowance of  $14\frac{5}{8}$ " is required for recessing. The No. 575 reflector requires a height allowance of  $11\frac{3}{8}$ " for recessing.

When a shell assembly is used with the No. 588 reflector,  $13\frac{3}{8}$ " should be allowed for recessing and No. 575 will require  $10\frac{7}{8}$ ".

**FINISH:** Ceiling flange is finished in aluminum lacquer and louver in light grey mat finish.

Cat. No.	DESCRIPTION
2120H	300-500 watt unit with reflector No. 588, holder, louver, ceiling flange, and side opening shell mogul socket assembly.
2120K	300-500 watt unit with reflector No. 588, holder, louver, ceiling flange and four inch outlet box cover and mogul socket.
14312 *	Plaster ring for 2120 H or K.
2130H	200-300 watt unit with reflector No. 575, holder, louver, ceiling flange and side opening shell medium base socket assembly.
2130K	200-300 watt unit with reflector No. 575, holder, louver, ceiling flange and four inch outlet box cover and medium base socket.
14028 *	Plaster ring for 2130 H or K.

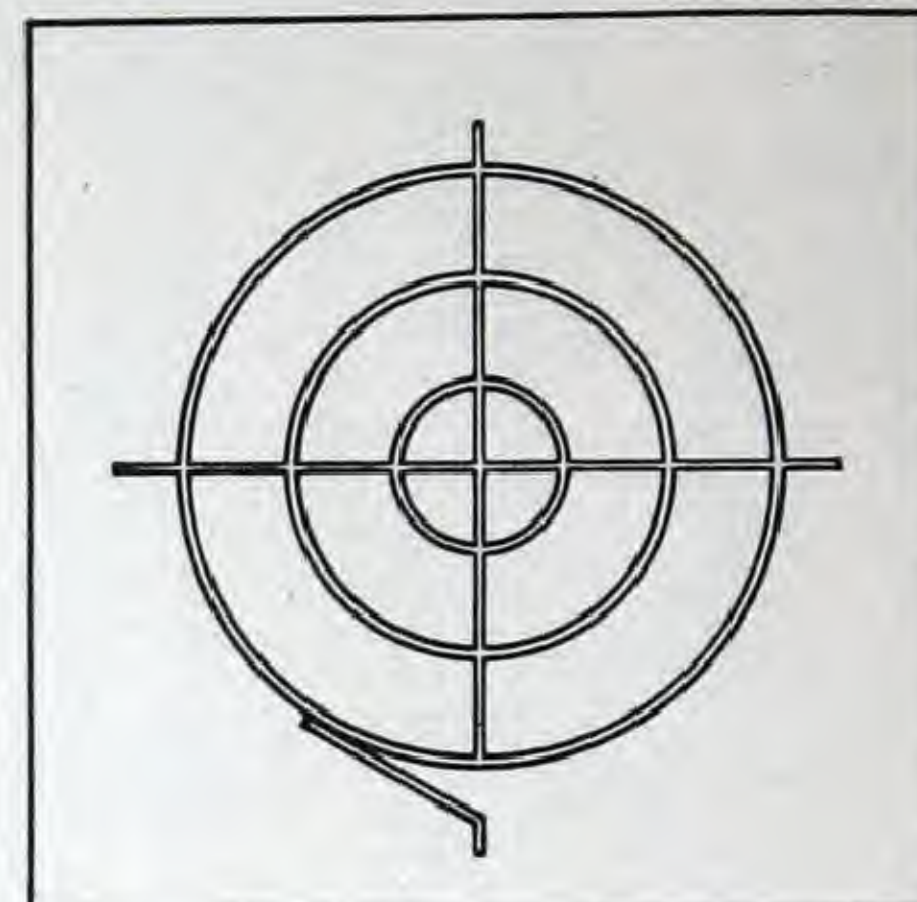
\* Not included with units. Order separately when units are installed in plaster ceiling.



# RECESSED UNITS

## ' ' SNAP-IN ' ' LOUVER

The louvers are composed of concentric steel rings and are supplied in a grey mat finish. This color is chosen for its low brightness and attractive appearance. The louvers are easily removed by compressing the flexible arm. Louvers shield the reflector and lamp at normal viewing angles and give a finished touch to the fixture.



### ILLUMINATION DATA FOR 2120 H & K

Foot-candle readings with 500 watt inside frosted lamps. For 300 watt multiply value by .6. Spacing for best results not to exceed ceiling height.

Ceiling height	Area per outlet Square feet	AVERAGE FOOT-CANDLES — MAINTAINED *		
		Large room	Medium room	Small room
		4 or more units in each direction	2 or 3 rows of units	1 row of units
9' to 12'	100	40-45	32-38	28-32
	150	32-36	25-30	23-26
	200	20-23	18-22	17-20
	250	16-18	14-17	13-15
12' to 15'	100	38-42	26-30	19-22
	150	25-28	19-22	17-20
	200	19-21	15-17	13-15
	250	16-18	14-16	11-13

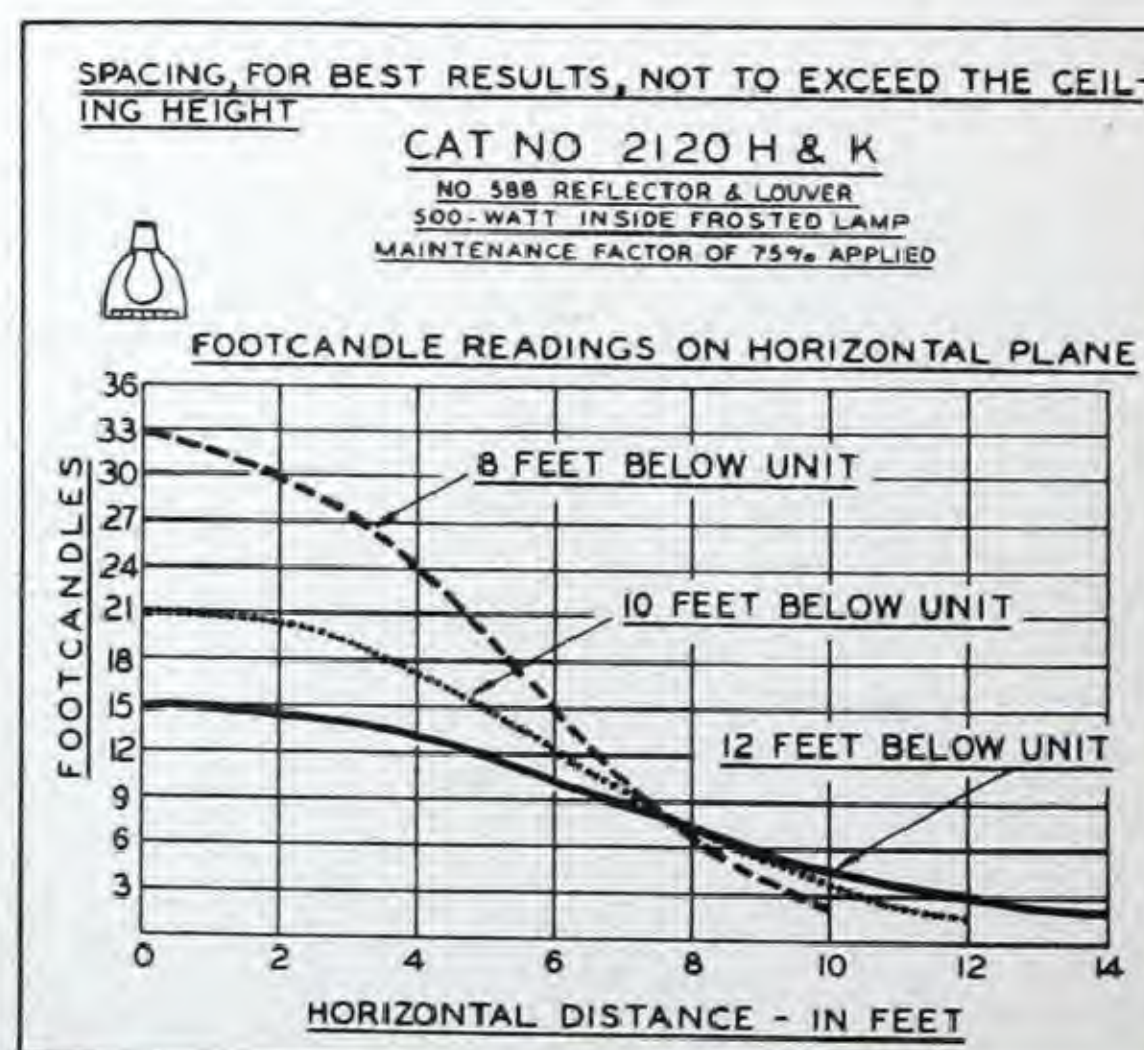
\* Depreciation factor of 25% has been deducted from initial readings.

### ILLUMINATION DATA FOR 2130 H & K

(200-300 watts)

Readings for 2130 H and K can be obtained from the table above and the chart at the right by use of the following formula.

For approximate foot-candle readings for 300-watt lamp, multiply foot-candle data above and at right by .6; for 200-watt lamp by .4.



# Curtis Lighting, Inc.

NEW YORK

Printed in U.S.A.

1123 W. Jackson Blvd.,  
CHICAGO

TORONTO

Serial 1094



# Curtis "F" Schedule

These prices apply to

**FLUORESCENT SHOW WINDOW LIGHTING**, Serial F-2001  
**STARLUX LUMINAIRE**, Serials F-1099 and F-2008  
**NEW HANGER EXTENSIONS** for Starlux & Skylux Hangers

...RETAIL PRICE

FEB 1 1941

SHEET

**F-1063-A**

SUPPLEMENT TO  
 SERIAL F-1063

January 22, 1941

Wired units include 60 cycle high power factor ballasts, sockets, starting compensators (when needed) and starters.

Approximate Shipping Weights	Catalog No.	Standard Package	Retail Price  R
49	● 934-C	1	\$44.30
300	● 934-C6*	6	43.70
64	● 935-C	1	51.60
390	● 935-C6*	6	51.00
65	● 936-C	1	55.90
270	● 936-C4†	4	55.30
89	● 937-C	1	69.15
366	● 937-C4†	4	68.55
2	1034	6	1.45
4	1035	4	2.15
65	● 1400	1	58.95
65	● 1411	1	51.40
65	● 1412	1	49.95
	6401	1	1.47
	6402	1	2.25
	6403	1	.74
	6404	1	1.13
15	12404	1	7.50
24	12405	1	13.55
12	14064	6	1.65
18	14065	4	1.85

\* Bulk packed—six to a box.  
 † Bulk packed—four to a box.

● WIRED UNITS

**RETAIL PRICES**

**Curtis Lighting, Inc.**

1123 W. Jackson Blvd.

NEW YORK

CHICAGO

TORONTO



Charles F. Smith

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What year? (month, day, year)

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United States  
by  
John P. Kennedy  
New York  
1900

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CHICAGO

NEW YORK



# FLUORESCENT *X-Ray* UNITS

## FIVE-FOOT (235 WATT) and THREE-FOOT (150 WATT) *Window Lighting Units*

Designed for use as single units or in continuous runs. Combinations can be made to illuminate correctly any length and depth of window.

The five-foot unit uses two 5' lamps and is rated at 47 watts per linear foot, including control equipment. The three-foot unit uses four 3' lamps, two installed in each reflector one above the other (note cross-section lower right corner). This unique positioning of the 3' lamps permits a light output equal per running foot to that of the 5' unit. The 3' unit is also rated at 47 watts per linear foot, including control equipment.

### CONSTRUCTION

In the sides and ends of the steel reflector housing are  $\frac{7}{8}$ " knockouts for carrying the line wires from unit to unit when mounted end to end or side to side. A  $\frac{7}{8}$ " knockout is also provided in the top of the housing for use as a wire entrance.

Two  $1\frac{3}{8}$ " knockouts are provided in the side of the housing away from the window. Sign receptacles and adjustable sockets (not included) may be installed in these knockouts for reflector lamps used in spot lighting impulse items, etc.

Holes and knockouts are also provided in the top, ends and sides, for fastening the unit to the ceiling. Arrangement of knockouts illustrated by drawing at right. Reflectors, ballasts, etc. are all enclosed and fastened within the housing.

### SPECIFICATIONS

**Reflectors:** Both the 5' and the 3' units have two asymmetric reflectors made of Alzak Aluminum with high polished, permanently bright, specular finish.

**Reflector Housing:** Made of heavy steel. Will pass code requirements for recessing.

**Dimensions:** Width  $14\frac{1}{8}$ ", depth  $5\frac{3}{4}$ ". Louver extends  $1\frac{1}{2}$ " below bottom of housing. Overall length of 5' unit is  $60\frac{1}{4}$ "; Overall length of 3' unit is  $38\frac{1}{4}$ ".

**Wiring:** Wired complete for 110-125 volts with high power factor two-lamp ballasts, starting compensators and starter switches. Carries Underwriters Laboratories label.

**Louver:** Units may be obtained with or without louver. (Louver installed is shown in large illustration top right corner.) The louver swings open to permit easy access for relamping and cleaning. Finish: snow white "Fluracite." See further description next page.

### METHOD OF MOUNTING

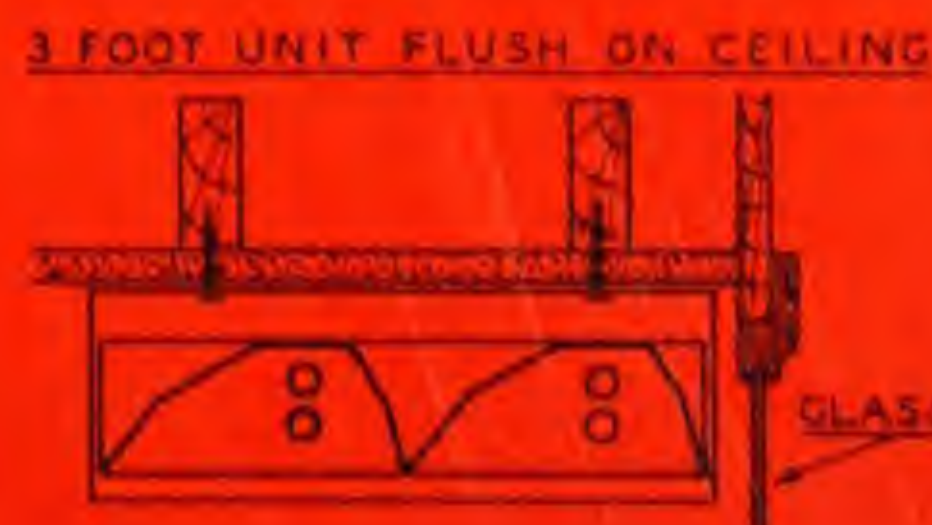
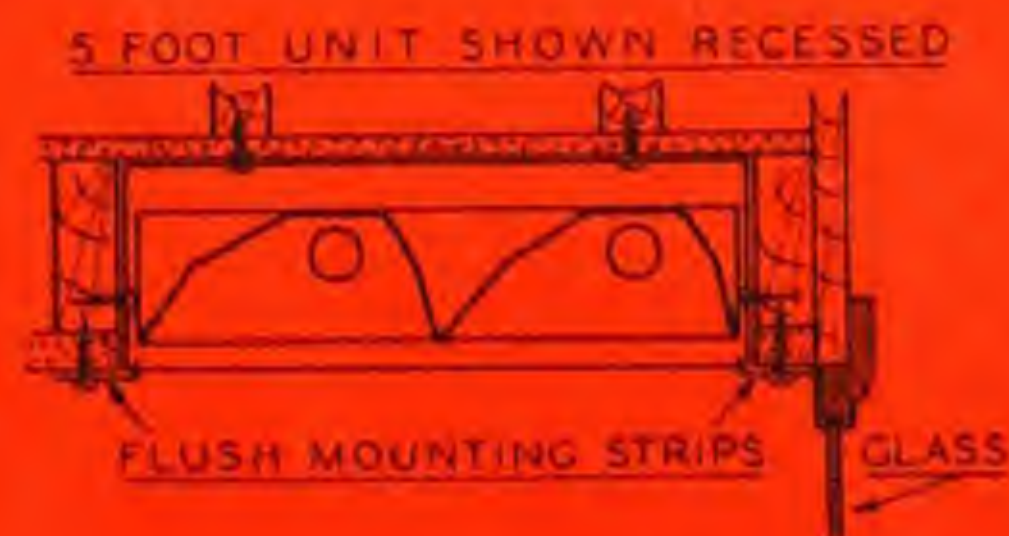
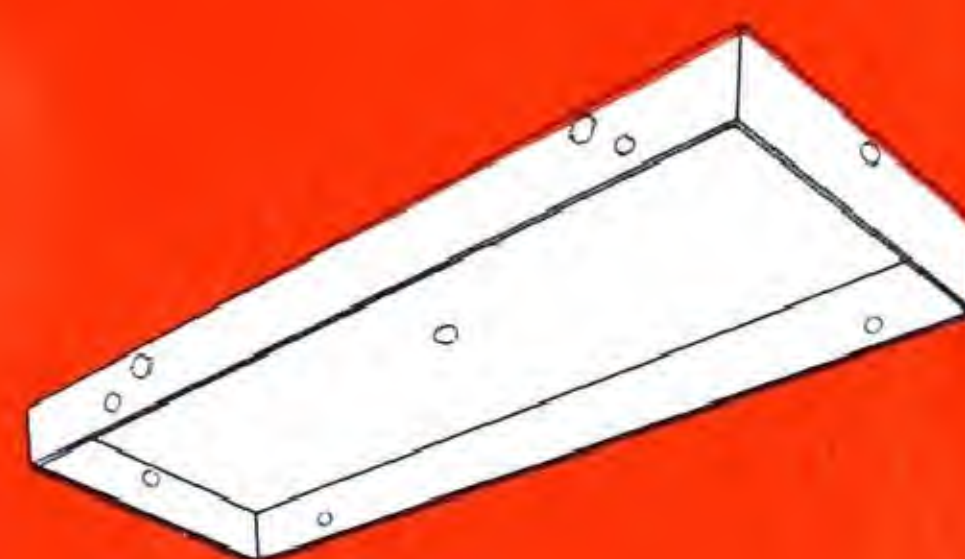
Units may be recessed into the ceiling or bolted directly on the surface of the ceiling. Six  $\frac{1}{4}$ " holes are provided in the top of the steel box for bolting to ceiling. When unit is recessed, flush mounting strips (see next page) are recommended.

### COMPLETE UNITS WIRED (110-125 VOLTS)

CAT. No.	LENGTH	LAMPS (not included)	TOTAL WATTS (approximate)	REMARKS
WITHOUT LOUVER				
934C	$38\frac{1}{4}$ "	4-30W	150	One to Carton
934C6*	$38\frac{1}{4}$ "	4-30W	150	Six to box*
936C	$60\frac{1}{4}$ "	2-100W	235	One to Carton
936C4*	$60\frac{1}{4}$ "	2-100W	235	Four to box*
WITH LOUVER				
935C	$38\frac{1}{4}$ "	4-30W	150	One to Carton
935C6*	$38\frac{1}{4}$ "	4-30W	150	Six to box*
937C	$60\frac{1}{4}$ "	2-100W	235	One to Carton
937C4*	$60\frac{1}{4}$ "	2-100W	235	Four to box*

\* Same as preceding item but bulk packed.

ACCESSORIES: NEXT PAGE





# Fluorescent X-Ray Show Window Unit

## ACCESSORIES

When units are recessed, it is desirable to use Flush Mounting Strips to give a neat appearance to the ceiling opening. Flush mounting strips not illustrated are ordered separately by catalog numbers 14064 or 14065 (see table below).

**Reflector Baffle** throws additional light to top of high trim windows with high background. Baffle is fastened to bottom of the housing on side nearest the glass. Not used with louver.

**Louvers** can be ordered separately from table below. Complete units including louver are listed on preceding page. Louver is used to reduce brightness and provide shielding of lamps and reflector. This louver, finished in snow white "Fluracite," adds considerably to the appearance of the show window.

ACCESSORY TABLE

FOR USE WITH	FLUSH-MOUNTING STRIPS	REFLECTOR Baffle	LOUVER
934C, 934C6 935C, 935C6	14064	1034	12404
936C, 936C4 937C, 937C4	14065	1035	12405

## SPOTLIGHTING

To highlight portions of displays and permit shifting of centers of interest, auxiliary lighting is suggested. Fluorescent lamps do not lend themselves to spotlighting, but concentrating type of floodlights with incandescent lamps can be used. Adjustable silver-mirrored spotlights with color equipment are to be preferred for general service, but for occasional use, standard reflector-spot lamps will be satisfactory. Knockouts for sign receptacles are provided in each fluorescent X-Ray unit to permit easy installation of the reflector-spots or connection for floodlights.

## OTHER TYPES OF CURTIS FLUORESCENT LIGHTING EQUIPMENT

Fluorescent Show Window lighting is at its best in connection with interior fluorescent general lighting and fluorescent show case lighting. We suggest the use of fluorescent "SkyLux" luminaires and "CaseStrip."

### "SKY LUX" LUMINAIRES . . .

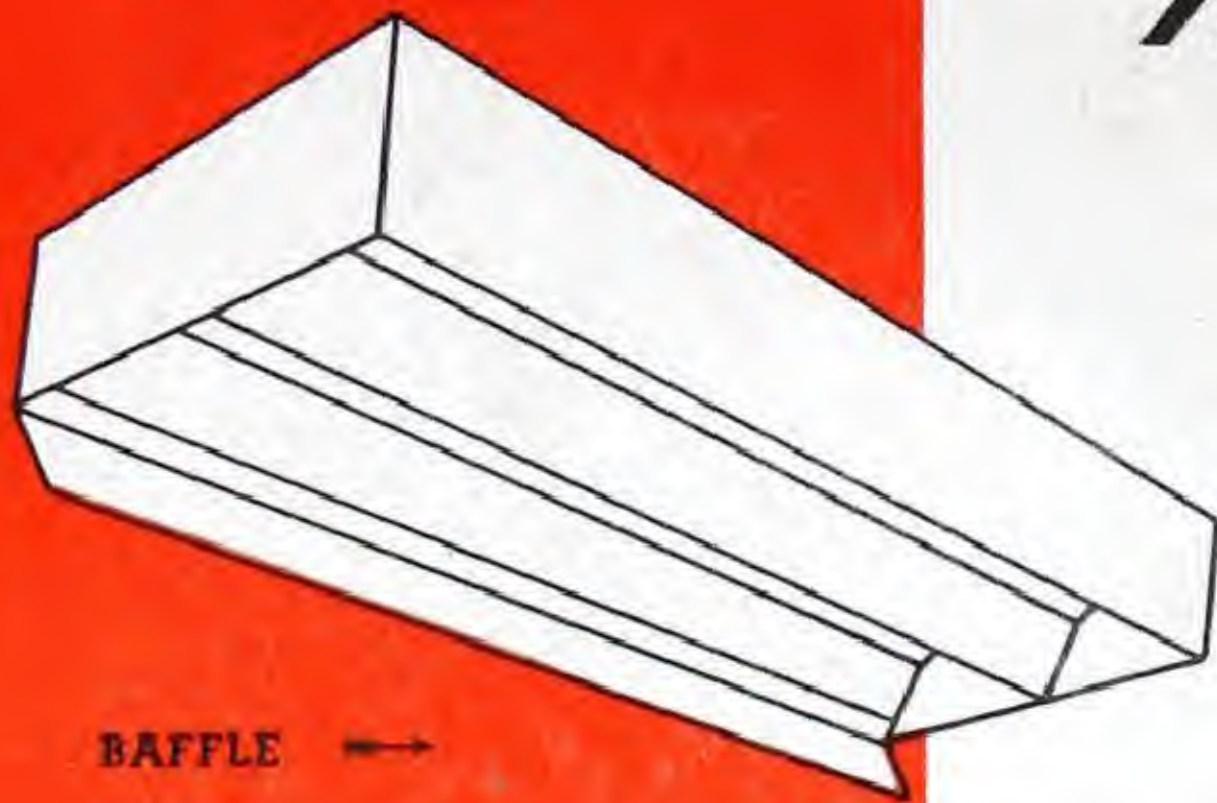
are high quality general lighting fixtures which provide cool, efficient fluorescent light. They can be used in continuous lines or as individual fixtures and may be mounted on the ceiling or suspended. Write for "SkyLux" bulletin, Serial No. 1050.

### "CASE STRIP" . . .

is a compact, efficient case lighting unit for use in show cases and wall cases. The Curtis ejector socket used in this product permits easy removal of lamps for cleaning and replacement. Write for "CaseStrip" bulletin, Serial No. 1045.

Serial No. 2001

Printed in U. S. A.



BAFFLE →

